

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Astrom, et al.
Serial No. : 10/774,948
Filed : February 10, 2004

Art Unit : 2624
Examiner : Tsung Yin Tsal
Conf. No. : 8639

Title : METHOD AND ARRANGEMENT IN A MEASURING SYSTEM

Mail Stop Appeal Brief - Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF

Pursuant to 37 C.F.R. § 41.41, Applicant responds to the Examiner's Answer as follows.

The Answer seems to repeat the language of the rejections from the final office action, and the Examiner apparently comments on Applicant's argument both on pages 4-5 and 13-14 of the Answer. In this Reply Brief, Applicant comments on the Examiner's responses in the two sections mentioned above.

On page 5, the Answer refers to Takashi's Fig. 9 and states that the "Examiner see[s] sensitivity as a determination of an object scatter[ing] property." It is unclear from the Answer whether the Examiner is asserting that the atmospheric particles are "the location" as recited in claim 1, or whether the Examiner is asserting that the scattering of light from atmospheric particles somehow constitutes an object scattering property of the remotely located ground. However, both assertions would be erroneous. First, if Takashi's atmospheric particles were "the location" then Takashi fails to determine "an object profile" for the atmospheric particles in addition to the object scattering property as required by claim 1.

Second, light scattered from atmospheric particles is *not* an object scattering property of the ground according to Takashi. See, e.g., Takashi 5:29 (stating that "it is *necessary* to separate signals reflected from the ground surface 23 from such scattered light" to avoid "a considerably indistinct image").¹

Moreover, with regard to Takashi's mentioned "sensitivity" on which the Examiner relies, Takashi describes it as follows:

¹ Emphasis is added unless otherwise noted.

The light receiving surface 8 of said image intensifying tube 9 receives light scattered backward by space particles such as fine drops of mist suspended in the atmosphere *with a sensitivity which varies in inverse proportion to the length of time after generation of output laser pulses as shown by a dotted line in FIG. 9 ...* .

Takashi 5:17-22. That is, Takashi describes this “sensitivity” as *the sensitivity of the light receiving surface 8* in light scattered by atmospheric particles. Note Takashi’s explicit statement that the sensitivity “varies in *inverse proportion to the length of time* after generation of output laser pulses.” That is, Takashi’s sensitivity strictly depends on the length of time after the laser pulse, and this sensitivity therefore does not depend on any properties of the atmospheric particles or the ground. Therefore, contrary to the position taken by the Examiner, Takashi’s sensitivity is not an “object scattering property.”

Indeed, Takashi describes Fig. 9 as showing that the signals reflected from the ground (labeled “Reflected Signal”) generally arrives around a time t_3 , and states that the receiver should be open “only approximately at the end of the time t_3 ” to separate the reflected signals from the scattered light. Takashi 5:17-40. That is, Fig. 9 is an illustration of how to set the threshold to detect the reflected signal and does not show any object scattering property of the ground.

Finally, the Examiner asserts that the “ability to obtain light coming from different angles of the surface/object is [the] same as obtaining scatter light property of the surface/object.” Answer p. 14. This is not correct. Even if “light coming from different angles of the surface/object” were detected, this does not teach or suggest that “an object scattering property for the specific location” should be determined.

Conclusion

For these reasons, and the reasons stated in the Appeal Brief, Applicant submits that the final rejection should be reversed.

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Respectfully submitted,

Date: July 25, 2011 _____

/s/ J. Richard Soderberg reg. no. 43,352/ _____
J. Richard Soderberg
Reg. No. 43,352

Customer Number 26191
Fish & Richardson P.C.
Telephone: (612) 335-5070
Facsimile: (877) 769-7945